

V.P & R.P.T.P SCIENCE COLLEGE V.V.NAGAR

Internal test

Subject-Electrical instruments and Power electronics-II

Date: 13/03/2015

Course: Instrumentation (V)

Time: 10:30 to 12:00pm

Subject code: US04CINV01

Total Marks: 25

Q-1 Choose correct answer from given:

[3]

- (1) An SCR is _____ layer device with three terminals.
(A) two (C) four
(B) three (D) none of above
- (2) A TRIAC is a _____ device with three terminals.
(A) Bi-lateral (C) both (A) and (B)
(B) positive and negative (D) uni-lateral
- (3) An SCR are connected in series to improve the _____ rating.
(A) current (C) power
(B) voltage (D) none of above



Q-2 Short answer type questions. (attempt any two)

[4]

1. Briefly explain string efficiency.
2. Differentiate DIAC and TRIAC.
3. What is cycloconvertor? And list its application.

Q-3 Explain constructional and principle operation of an SCR with its characteristics.

[6]

OR

Q-3 Discuss series operation of an SCR with necessary diagram.

[6]

Q-4 Discuss constructional mechanism and characteristics of an UJT.

[6]

OR

Q-4 Explain constructional mechanism and Triggering mode of TRIAC.

[6]

Q-5 Explain application of an SCR 'Zero voltage switch'.

[6]

OR

Q-5 Discuss application of an SCR Static circuit breaker.

[6]

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